

CORRESPONDENCE

components of the survival curves also seem to be valid observations that will be useful in the analysis of potential treatment programs.

The issue regarding the value of radiotherapy in lung cancer is indeed a hotly contested one. It would have been wise, on our part, to have omitted this from our analysis, since it does little to settle the issue. Retrospective studies such as these are undoubtedly filled with bias. We were careful in our conclusions since we recognized that such bias could have occurred compounded by the relatively small number of cases. Careful analysis of the published graphs shows that there may have actually been some advantage to the radiotherapy treated group depending on the interpretation desired. This advantage is relatively small and of no statistical significance.

The issue of the value of radiotherapy in lung cancer will not be resolved for several years. Nearly all proponents seem to agree that the relative merits are currently measured in weeks of survival rather than in years which would be required to make this issue worthy of the energy spent in debating it. We must stand on our data and regret that it may appear to be misleading to some. Additional prospective studies of this issue are needed to satisfactorily resolve it.¹ It may well be that the issue at hand is not one

of local disease control, but that of the presence of micrometastasis at the time of the initial evaluation.

In the meantime, there is no valid reason to withhold radiotherapy as part of the standard treatment of lung cancer. The decision regarding such therapy will continue to be that of the individual treatment center. There is no doubt about the merits of initial tumor response to radiotherapy. The high failure rate may be due to any one of several factors. Physicians should be encouraged to continue to refer patients to large treatment centers for investigation and therapy. Likewise, treatment centers must continue their refinement of patient selection through accurate staging procedures, and improve and standardize therapy through prospective trials designed to take advantage of current knowledge and past experiences.

RALPH D. REYNOLDS, Col, USAF, MC
Chief, Hematology/Oncology Service
David Grant USAF Medical Center
Travis Air Force Base, California

BERNARD R. GREENBERG, MD
Assistant Professor of Medicine
University of California, Davis
School of Medicine

JAMES H. SHIRLEY, LtCol, USAF, MC
Chief, Thoracic Surgery Service
David Grant USAF Medical Center
Travis Air Force Base, California

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Outpatient Cardiac Catheterization

TO THE EDITOR: Justifiable concern has been expressed in recent years over the rising cost of health care in general, and in particular over the cost involved in the nation's largest single health problem, coronary artery disease. Growing acceptance of coronary angiography has led to its widespread use as a procedure. Careful patient selection is of primary importance in eliminating the costs of unnecessary studies. In addition, attempts should be made to control the cost of the procedure itself by discouraging the rote retrieval of superfluous data during the routine study (that is, routine right heart catheterization, dye curves and the like) and by avoiding costs of unnecessary hospital admissions at the time of study.

In this regard, we would like to mention our experience in carrying out elective outpatient

cardiac catheterizations as an important contribution toward controlling the overall cost of the procedure. In reviewing approximately 5,000 elective cardiac catheterizations done at Daniel Freeman Memorial Hospital, it became apparent that late complications of cardiac catheterization are rare and can be predicted at the time of study.¹ Based on this experience, outpatient catheterization has been done by the brachial approach on 537 patients at Daniel Freeman Memorial Hospital over the past three years. Of these patients, 350 were outpatients whose physical condition was deemed stable by recent office evaluation. While 25 of these patients were admitted to the hospital following catheterization for observation (usually because of severe coronary artery disease found at catheterization), the remainder were observed for three hours following the procedure and subsequently allowed to return home. During this observation period they were

fed a meal and were ambulated, and serial checks of the radial pulse were done. There were no late complications. A single patient had a weak radial pulse on leaving, and he returned the following day for a successful thrombectomy procedure.

Outpatient cardiac catheterization was done in an additional 187 patients, transfers from hospitals in the vicinity. These were generally patients admitted for accelerated angina or subendocardial infarction in whom cardiac catheterization was required during their current admission. Of this group, 20 patients remained at Daniel Freeman Memorial Hospital to undergo coronary bypass procedures. The remainder returned by ambulance to their original hospital after a short period of observation. No major catheterization-related complications were noted. In two patients a weak radial pulse developed and successful thrombectomy was carried out at the referring hospital on the following day.

This experience is being combined with that of the few major catheterization laboratories from other parts of the country where outpatient catheterization is done. Preliminary data in a collaborative study of more than 4,000 outpatient cardiac catheterizations are similarly favorable and will be reported in the future. The safety of this approach to cardiac catheterization should thus be established, and outpatient studies are likely to have an important financial impact on the overall cost of cardiac catheterization. Outpatient catheterization can reduce costs by as much as 40 percent of that of the usual inpatient study. Additional benefits of the outpatient approach include better patient acceptance and comfort.

DAVID A. CIRAULO, MD
GERALD F. BRESNAHAN, MD
WILLIAM R. ZIMMERMAN, MD
ROBERT B. CHESNE, MD
Cardiology Department
Daniel Freeman Memorial Hospital
Inglewood, California

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A Monumental Squeak

TO THE EDITOR: All of us who have served on review or utilization committees have wondered what in the name of sense we were doing. Like sheep, hounded by the baying of the federal sheep dogs, we have followed blindly, protesting only by some mild bleating. As doctors we should long

ago have been demanding the same answers that we require of any new medical or surgical procedure: Does it work? What are its side effects? What does it cost the patient?

Are Utilization Committees Effective?

In New York, Cornell University Medical Center has for years attempted diligent utilization review and audit. A critical examination of the results is startling and terrifying. An investigator at Cornell has shown that over the years an average of 9,500 hospital records were reviewed annually to identify *six* patients per year who were in the hospital too long. The cost of identifying *each* of these patients was \$34,212.¹ Extrapolating the expense of the program at Cornell to national proportions implies a cost estimated to exceed the entire research budget of the National Institutes of Health.

Again extrapolating from the Cornell experience, the work load for physicians would require the full-time professional output of six times the entire graduating class per year at Cornell.

In three years the "guidelines" for implementing the program have grown from 3 pages to 26 pages, and the nonmedical staff now requires 20 people working full time. On a national level this would require a cadre of thousands.

Well, is there a subtle influence on physicians who, knowing that a utilization review panel is overseeing hospital stays, thereby tend to decrease hospital use? Not at Cornell. There was no evidence that the implementation of utilization review had any effect on the length of stay, which remained roughly the same throughout the entire period of the study.

Does a Medical Audit Improve Hospital Medical Care?

Hundreds of us have attempted over the years to respond to the mandate of the Joint Commission on Accreditation of Hospitals (JCAH) by setting up ideal standards of care for individual diseases from asthma to Zollinger-Ellison syndrome—including such intangibles as how often to take blood pressure, when and how often to measure blood gases and whether to obtain a chest x-ray. Most of us have reacted with the same skepticism that Rembrandt might have felt if the Dutch government told him how to mix his paints. But under the combined threat of non-